International Journal of Applied Research

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A study to evaluate the effectiveness of structured teaching programme on dysmenorrhea in terms of knowledge among the GNM students of Shimla Nursing College, Annandale, during 2016

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Abstract
Dysmenorrhea is defined as difficult menstrual flow or painful menstruation. The term dysmenorrhea is derived from the Greek Word Dys meaning difficult/painful/abnorma"l Meno meaning month and rhoea meaning flow. Dysmenorrhea is a Gynecological medical condition characterized by serve uterine pain during menstruation. Dysmenorrhea is classified as; - Primary dysmenorrhea or Secondary Dysmenorrhea. Primary dysmenorrhea is defined as menstrual pain not associated with macroscopic pelvic pathology. It typically occurs in the first few years after menarche and affect up to 50% of post pubescent females. Secondary is defined as menstrual pain resulting from anatomic and macroscopic pelvic pathology such as that seen in woman with endometriosis or chronic pelvic inflammatory diseases. This condition is most often observed in women aged 30-45 years. Dysmenorrhea is highly prevalent during adolescence. Despite differences in measurement methods, 20%- 90% adolescent girls report dysmenorrhea about 15% of adolescents girls describe their dysmenorrhea as severe. Dysmenorrhea affects the daily life activity of the girls and women. It also affects their work schedule, psychological condition. It help the researcher to know how many days before the premenstrual symptoms start in them,which home remedial measure they will take to remove the symptoms, which drugs are mostly used to relieve the pain etc. The inferential statistics regarding this study is very less. So this study is very useful for the GNM students to improve their knowledge. Objective of the study is to assess and compare the knowledge of G.N.M students in pre-experimental group regarding the knowledge of dysmenorrhea before and after the administration of structured teaching programme. Evaluative research approach is used with Pre- experimental- pre and post-test design & sample are selected by convenience sampling techniques. The result of study shows the pre-test mean knowledge score of pre- experimental group is 5.5 & of post test is 9.7. 't' test value of pre- experimental group is 20.29 which is consider to be significant of knowledge. So the conclusion of study is improvement happens in knowledge regarding dysmenorrhea after administering the structured teaching programme among the G.N.M. students of Shimla Nursing College.

Key words: Dysmenorrhea, Structured teaching programme, GNM students

1. Introdution
"God, who foresaw your tribulation, has specially armed you to go through it, not without pain but without stain"
Dysmenorrhea is defined as difficult menstrual flow or painful menstruation. The term dysmenorrhea is derived from the Greek Word Dys meaning difficult/painful/abnorma"l Meno meaning month and rhoea meaning flow [1]. Dysmenorrhea is a Gynecological medical condition characterized by serve uterine pain during menstruation. Most women being having dysmenorrhea during adolescence usually within four to five years of the first menstrual period. Painful period become less common as woman age [2].
Dysmenorrhea is classified as; - Primary dysmenorrhea or Secondary Dysmenorrhea. Primary dysmenorrhea is defined as menstrual pain not associated with macroscopic pelvic pathology (i.e. absence of pelvic disease). It typically occurs in the first few years after menarche and affect up to 50% of post pubescent females. Secondary is defined as menstrual pain resulting from anatomic and macroscopic pelvic pathology such as that seen in woman with endometriosis or chronic pelvic inflammatory diseases. This condition is most often observed in women aged 30-45 years [3].

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Prostaglandins are chemical that are formed in the uterus during menstruation. These prostaglandins cause muscle contraction in the uterus, which cause pain and increasing blood flow and oxygen to the uterus similar to the labour pain, significant and discomfort prostaglandins may also contribute to the nausea and diarrhea that some women experience [4].

Dysmenorrhea includes one or more of such symptoms as mild to serve cramping in the lower abdomen, back pain and pulling on the inside of the beginning to the end of the menstrual flow, which may be for as long as 5-6 days [5].

Since an excess of prostaglandins in the lining of the uterus seen to the one of the major causes of dysmenorrhea, any medication that reduce the amount of prostaglandins will be helpful in relieving the pain, Aspirin for example; reduce prostaglandins production slightly and some women do in fact get relief by taking aspirin during their monthly period.

For women with manifestation who wants to avoid medication non-pharmacological remedies might be effective e.g. therapeutic touch & acupuncture might be helpful, nutritional measures includes low the intake of sodium & low intake of vitamin,B6,calcium,magnesium & protein exercise such as aerobic exercise. Pharmacological management such as Ibuprofen (Motrin), mafenamic acid (ponstel), Indomethacin (indocin) & naproxen [6].

Dysmenorrhea affects the daily activity or life pattern of the girls and women. It also affects their work schedule, psychological condition. Common cause of secondary dysmenorrhea includes endometriosis, uterine fibroids and sexually transmitted disease. It help the researcher to know how many days before the premenstrual symptoms start in them, which home remedial measure they will take to remove the symptoms, which drugs are mostly used to relieve the pain etc. The inferential statistics regarding this study is very less. So this study is very useful for the GNM students to improve their knowledge [7].

2. Methodology

Research methodology is the significant part of any research study, which enables the researcher to project a blue print of the research understanding. The research approach adopted in the study was Descriptive research approach. A Pre-experimental research design was selected for the present study. The study will be conducted in, Shimla Nursing College, Annandale, Shimla. The total population of G.N.M students studying in collage was the target population for the study. The sample for this study will consist of 40 G.N.M 1st year students. Convenience sampling technique will be used in this study. Tool for data collection was developed in English and it comprises of three parts, (Part A)-Consists of question related to demographic profile, (Part B)-Closed ended question, (Part C)-Structured questionnaire. Validity of tool was established by experts from nursing field for content. Ethical approval to conduct the study was obtained from the Principal of College. The purpose and details of the study was explained to the study subjects. Assurance was given regarding the confidentiality of the data collected. Verbal consent was taken from the study subjects.Data collection was not interfere in the routine working of the Students. The reliability of the tool was determined by using split half method and the tool was found to be reliable. The 'r" value calculated was r=0.71, hence the tool was considered reliable for proceeding with the main study. Data collection was carried out on 20th July, 2016. Before data collection formal written permission was taken from the Principal, Guide, and Class teacher for conducting of the study in the class room of the college. The investigators personally met the Principal and explained about the study to ensure for maximum cooperation. Nursing data was collected in the class room of respective students on following data.Self-introduction and introduction of the study were given to the adolescent girls studying in G.N.M 1st year. To get free and frank responses, the purpose of study was explained to the study subjects and the subjects were assured about the confidentiality of response. On day 20th July 2016 pre-test, was conducted. On 21st July 2016 administer structured teaching programme to adolescent girls regarding dysmenorrhea in pre-experiment group. On 24th July 2016, post-test programme was conducted to evaluate the effectiveness of structured teaching programme to enhance knowledge of adolescent girls regarding dysmenorrhea in pre-experiment group.

3. Result

Table 1 (a): Frequency and Percentage Distribution of selected Demographic variables (n=40)

S. No	Sample characteristics	Pre-Experimental group Frequency (n)	Percentage (%)
	Age in years		
1.	16-20 yrs	30	75%
	21-24 yrs	9	22.5%
	25-28 yrs	1	2.5%
	29-30 yrs	0	0%
	Diet		
2.	vegetarian	30	75%

	non vegetarian	10	25%
3.	**Personal habits**		
	B smoking	0	0%
	al alcohol	0	0%
	any other	0	0%
	none of the above	40	100%
4.	**Stream of education**		
	A.N.M	0	0%
	G.N.M	40	100%
	B.sc (basic)	0	0%
	B.sc (post basic)	0	0%
5.	**Family economic status**		
	Rs <5000	1	2.5%
	Rs 5000-10,000	15	37.5%
	Rs 10,000-15,000	15	37.5%
	Rs >15,000	9	22.5%

Data presented in Table 1 (a) shows that higher 30(75%) G.N.M students were between the age group of 16-20 years & 1(2.5%) students were between the age group of 25 – 28years. Maximum number of students had vegetarian diet 30(75%) & non vegetarian students were 10(25%). 100% of them had good habits & are from G.N.M stream. Maximum number of students had family income ranging between 5000-10,000 & 10,000-15,000 were 15(37.5%) and 15(37.5%) whereas minimum number of students had income Rs. <5000 i.e 1(2.5%).

Table 1 (b): Frequency and Percentage Distribution of knowledge of dysmenorrhea

S. No	Pre-experimental group	Frequency (n)	Percentag (%)
1)	A) Yes	29	72.5%
	B) No	3	7.5%
	C) Always	0	0%
	D) Sometime	8	20%
2)	A) Mild	13	32.5%
	B) Moderate	20	50%
	C) Severe	6	15%
	D) Very severe	1	2.5%
3)	A) 1-2 days	9	22.5%
	B) 2-3 days	4	10%
	C) 3-4 days	13	32.5%
	D)4daysor above	13	32.5%
4)	A) Nausea / vomiting	0	0 %
	B) Cramping leg pain	5	12.5%
	C) Lower back pain	25	62.5%
	D) All of above	10	25%
5)	A) Stress	3	7.5%
	B) Anxiety	10	25%
	C) Both of these	11	27.5%
	D) None of these	16	40%
6)	A) Yes	7	17.5%
	B) No	18	45%
	C) Do not know	5	12.5%
	D) Some time	11	27.5%
7)	A) 1day	21	52.5%
	B) 2 days	9	22.5%
	C) 3 days	5	12.5%
	D) 4 days or above	4	10%
8)	A) Heating pads	1	2.5%
	B) Hot water bottle	19	47.5%
	C) Sleeping	10	25%
	D) Divert the	10	25%
9)	A) Aspirin	3	7.5%
	B) NSAID	5	12.5%
	C) Vitamin E	4	10%
	D) Oral contraceptives	28	70%
10)	A) Yes	13	32.5%
	B) No	18	45%
	C) Do not know	7	17.5%
	D) Somewhat	2	%

Data presented in table1 (b) shows that maximum number of students 29(72.5%) felt dysmenorrhea. The degree of dysmenorrhea was found maximum with moderate pain in students 20(50%) & student 1(2.5%) had very severe pain. Students 13 (32.5%)& 13(32.5%) had dysmenorrhea for duration of 3-4 days and 4 days or above. Maximum students 25 (62.5%) had lower back pain during dysmenorrhea. In students 16(40%) experienced none of the psychological factor during dysmenorrhea while some students 3(7.5%) felt stress. Maximum students 18(45%) felt no change in pain according to season while some of the students 5(12.5%) did not know. In students 21(52.5%) the symptoms of dysmenorrhea started 1 day before while students 4(10%) had symptoms starting before 4 days and above. To relieve dysmenorrhea maximum students 19(47.5%) preferred hot water bottle and 1(2.5%) used heating pads as home- made treatment. Maximum students 28(70%) used oral contraceptives to relief symptoms and minimum students 3(7.5%) used aspirin. Maximum students 18(45%) felt no change in pain level due to environmental change while some students 2(5%) had somewhat change in pain level.

Table 2: Frequency and Percentage Distribution of G.N.M Students In Pre Experimental Group Based On Level Of Knowledge N=40

Pre experimental group					
Level of knowledge	Range of score and	Pre test		Post test	
	Percentage (%)	f	%	f	%
GOOD	11-15 (>73)	0	0 %	5	12.5%
AVERAGE	6-10 (33-73)	18	45%	35	87.5%
BELOW	0-5 (<33)	22	55%	0	0%
TOTAL		40	100%	40	100%

Data presented in the table 2 shows that in pretest maximum number of G.N.M students had below knowledge (22) followed by average knowledge (18) regarding dysmenorrhea from pre experimental group whereas in post test majority of G.N.M students had average knowledge (35) followed by good knowledge (5) regarding dysmenorrhea.

Table 3: Mean, median, standard deviation and range of score of Pre Test and Post Test knowledge score of G.N.M students in pre-experimental group. N=40

Group	Mean		Median		SD	
	Pre Test	Post Test	Pre Test	Post Test	Pre Test	Post Test
Pre-experimental group n=40	5.5	9.7	5.5	9.5	0.89	1.01

The data presented in table 3 shows that range of score of pre- experimental group was 9.7-9.5 for post-test whereas score was 5.5 - 5.5 for pre-test. The data further indicated that the mean post-test knowledge score (9.7) was higher than the mean pre-test knowledge score (5.5) in pre- experimental group. The findings further indicated that the median of pre- experimental group was 5.5 for pre-test and 9.5 for post-test. The data also shows that the standard deviation of post-test knowledge score was 1.01 and pre-test knowledge score was 0.89 for pre- experimental group.

Table 4: Mean, mean difference, standard deviation of difference, standard error of mean difference and 't' value of pre-test and post-test knowledge score of G.N.M students in pre-experimental group. N=40

Group	Knowledge test	Mean	Mean D	SDD	Semd	T value
Pre-Experimental Group N-=40	Pre test	5.5	4.2	0.12	0.212	20.29
	Post test	9.7				

Data presented in table 4 shows that the mean post-test knowledge for score of G.N.M students in pre-experimental group was 9.7 and the mean pre-test knowledge score was5.5 with the mean difference of 4.2. The computed 't' value of 20.29 was found to be statistically significant at 0.05 level which showed that the mean difference between the mean pre-test and post-test knowledge scores of G.N.M students in pre- experimental group was a true difference and not by chance. To find out the significant difference between the post-test knowledge score of G.N.M students in pre-experimental group, the following research hypotheses and null hypotheses were stated. H₁- The mean post-test knowledge score of G.N.M students was significantly higher than the pre-test score of pre- experimental group.

4. Discussion
The purpose of this study was to assess the effectiveness of STP on dysmenorrhea in terms of knowledge among G.N.M students. Many studies have been done to assess the knowledge of adolescent girls regarding knowledge of dysmenorrhea. The objectives of study are: To assess the prevalence of dysmenorrheal among the G.N.M., Students of Shimla Nursing College, Annandale, Shimla during 2016. To assess the knowledge of dysmenorrheal among the G.N.M. Students of Shimla Nursing College Annandale Shimla during 2016..The study assumes that: Adolescent girls are at high risk of getting dysmenorrhea. Adolescent girls will have some knowledge regarding prevention of dysmenorrhea. Structured Teaching Programme will help in enhancing the knowledge and attitude of G.N.M. Students regarding dysmenorrhea. G.N.M Students will feel free to respond to the structured knowledge questionnaire regarding prevention of dysmenorrhea. Knowledge gained by G.N.M. Students after structured teaching programme will be retained to some extent. The study also attempted to examine the following hypothesis: H1-The mean post-test knowledge score of G.N.M. Students in pre- experimental group will be significantly higher than mean pre-test knowledge score. The conceptual framework adopted for the study was based on the CIPP (context, input, process and product) model by Stuffle beam. It provides a comprehensive, systematic and continuously ongoing

framework of programme evaluation. The literature review further enabled the investigators to develop a conceptual framework, methodology of the study and decide plan for data collection. The research approach adopted for the study was pre- experimental research approach. The variables under the study were Structured Teaching Programme (independent variable), knowledge and attitude (dependent variable). The tools developed and used for data collection were structured knowledge questionnaire. The structured knowledge questionnaire comprised of 15 items to assess the knowledge of G.N.M. Students regarding dysmenorrhea and maximum score for this questionnaire was 12. The content validity of tool was obtained by submitting the structured knowledge questionnaire and structured teaching programme to the experts. The final data collection was done on 20th -24th July, 2016 at Shimla Nursing College Annandale, Shimla by using structured knowledge questionnaire. Written permission was taken from the College. It was observed that (72.5%) of the students were having dysmenorrhea. The findings are similar to that reported in literature that to determine the menstrual characteristics & prevalence of dysmenorrhea college going girls. The findings of the study was most of the 87.5% of the students were having knowledge regarding dysmenorrhea. This study showed that the mean percentage score of post-test in pre-experiment group was higher than the mean percentage score of pre-test this means STP was effective to increase the knowledge among G.N.M students. The findings revealed that the knowledge in pre-test session was poor. The study concluded that knowledge on all the aspects improved in the post test session after the administration of STP related to Dysmenorrhea. The increase in knowledge was statistically significant. The STP was effective in enhancing the knowledge among G.N.M students.

5. Conclusion
The study concluded that knowledge on all the aspects improved in the post test session after the administration of STP related to Dysmenorrhea. The increase in knowledge was statistically significant. The STP was effective in enhancing the knowledge among G.N.M students.

6. Recommendations
Based on the experiences gained during the study and the results obtained, the following recommendations are made: - A study can be conducted to find out the prevalence rate on dysmenorrhea among adolescent girls. A study can be conducted to assess the knowledge, and attitude of adolescent girls regarding dysmenorrhea. A study can be conducted to the correlation of students' knowledge level about menstrual with dysmenorrhea handling efforts. A study can be conducted on knowledge, and attitude of medical students about dysmenorrhea and its treatment.

7. Acknowledgement
At outset I the researcher of this study, express my heartfelt gratitude to the Principal, and Research committee of Shimla Nursing College, Shimla, Himachal Pradesh, for their constant motivation, source of inspiration and valuable suggestions, encouragement, sympathetic attitude and enlightening ideas which enabled me to accomplish my task. My sincere thanks also goes to the Experts who validated the content of the tool and by considering and extending their whole hearted co-operation and valuable suggestions.

Words are not sufficient to acknowledge my husband Mr. Parbhat Bhanu Chauhan for his encouragement, moral support, guidance, and forever appreciation for completing the task. I found myself lucky for having all of these from him on my part. I am also grateful to my friend Ms Ritika Soni for being a great reliable person to whom I could always talk about my problems and excitements.

8. References
1. Emedicine specialties > dysmenorrhea Anthers: Andre Holder, Laural D Edmundron, Mert Erogal, 502-07.
2. Harel Z. Dysmenorrhea in adolescents and young adult: etiology and management, J pediatr Adolesc Gynecol. 2006; 19:363-71.
3. Proctar Ml, Roberts H, Farquhar CM. as treatment for Primary dysmenorrhea, 2001.
4. Morgan PJ, Kung R, Tarshis J. Nitroglycercin as a uterine relaxant a systematic Review J Obstet Gynaecol. 2002, 403-09
5. Rosenwaks Z, Seegas–Jones G. Menstrual pain: its origin and pathogenesis. J Reprod Med. 25, 07-12.
6. Marjoribanks J, Proctor M, Farquhar C, Darks RS. Non-Steroidal anti-inflammatory drug for dysmenorrhea, 2010.
7. Gupta HD, Singh U, Sinha S. Laevonorgastrel intra uterine system a Revolutionary intra uterine device. J Indian Med Assoc. 2007, 382-385
8. Agnatavicius Donna, Workman Linda. M Mishler A Mary) Medical Surgical Nursing 2nd edition. 2216-17.
9. Power J, French R, Cowan F. Subdermal Implentable contraceptive verrus other forms of Reverisble contraceptive In power, Jo. Cochrane Database Syst, 2007.
10. Grun PN, Johnson CD, Adams A. Writing Narrative lit review journal of chiropractics medicine. 2006, 101-114.
11. http://link.springer.com/article/10.1007/s12098-008-0018-5
12. http://www.cabdirect.org/abstracts/20133353923.html;j sessionid
13. =7BE4F6D32692530B 30CE5E9816FB5ED.